

Raman UNIKA

ELODIZ UNIKA Raman

The ELODIZ UNIKA Raman device is a compact single-laser Raman system (532nm or 785nm) that offers research-grade performance whilst maintaining simplicity and ease of use. The system is flexible and upgradable up to three laser channels enabling expansion of data with your growing analytical requirements. Weighing only 5.5kg it is the instruments of choice for a quick and simple on-the-go analysis.

All data handling and calibration is controlled either online or offline via the standard ELODIZ SOMPAS desktop software we offer with all our devices. Not only does the system allow a fast access to and a simultaneous acquisition of data, but thanks to the device's flexible design the user can expand the number of channels (DUPLA or TRIPLA) to obtain even more critical information.

UNIKA is perfect for routine analysis in any academic research setting. It can sample directly through plastic or glass containers allowing a fuss free evaluation of materials and generation of data. Like all our other devices it benefits from an embedded unique standard calibration protocol which helps the user obtain consistent Raman spectra to be able to reproduce and repeat the results.

Along with the stand-alone laboratory bench device (white) we also offer a rack version (black) which can be mounted in a cabinet for industrial application, as well as a thermostable water and dust sealed enclosure (IP67) for the eventualities when an additional safety protection is required.

Our portfolio also includes accessorial fibre optic probes, which can be adapted to your requirements (e.g. probes for single point analysis, fully sealed reaction monitoring, adjustable working distance, immersion probes).



[Information request](#)

UNIKA Specifications*

Laser Wavelength	532nm or 785nm
Spectral Range	532nm: 200 - 4200 cm ⁻¹ 785nm: 200 - 3000 cm ⁻¹
Spectral Raman Resolution	532nm: 7 cm ⁻¹ @ 2520 cm ⁻¹ 785 nm: 5 cm ⁻¹ @ 968 cm ⁻¹
Max Laser Power	Class 3B, 532 nm: 80 mW Class 3B, 785 nm: 300 mW
Adjustable laser	532 nm - in 10% steps 785 nm - in 1% steps
Operation	Standard 2m long fibre-optic probe included (other models and lengths available on demand)
Slit	10um
Unit Calibration	Permanent factory calibration under EU CHARISMA protocols for standardisation
Size (WxDxL)	31x31x16 cm (portable version) 43x43x18 cm (rack version)
Weight (Kg)	5.5
NA Fibre	0.22
Detector Type	Si based CCD detector
Software Control	SOMPAS by ELODIZ, under Windows 10/Windows 11, Linux (Ubuntu 20.04 LTS)
PC Connection	Ethernet; device also includes two built-in USB connectors

*subject to change without notice

Supported Industries

- Art conservation & Archaeology studies
- Bioscience and Medical Diagnosis
- Surface enhancement Raman spectroscopy
- Polymers and Chemical Processes
- Online Reaction monitoring
- Semiconductor & Solar Industry
- Geology, Gemology and Mineralogy
- Pharmaceutical Industry
- Environmental Science
- Police and Forensic Analysis
- Teaching laboratories and Physics
- Quality Control and Quality Assurance
- General Research

Key Applications

- Direct Raman analysis of samples with selected laser line
- Reaction monitoring / PAT analysis using
- Process analysis
- Academic research